

**UNIVERSITY OF EDUCATION, WINNEBA-KUMASI  
COLLEGE OF TECHNOLOGY EDUCATION-KUMASI  
DEPARTMENT OF TECHNOLOGY EDUCATION**

**COURSE OUTLINE**

**COURSE TITLE:** Advanced Engineering Drawing  
**COURSE CODE:** BTE 320  
**CREDITS:** 2  
**LEVEL:** 300  
**SEMESTER:** 2  
**LECTURER:** STEPHEN K. AMOAKOHENE (Mr.)

**COURSE DESCRIPTION**

The course is designed main develop further competences in the preparation of assembly drawing and details of engineering components. Both first and third angle projections should be applied but the third angle projection must be emphasized,

**AREAS OF COVERAGE**

**Unit 1            Dimensioning and Tolerance**

- Basic Dimensioning-units of measurement.
- Dual Dimensioning.
- Basic rules fro dimensioning
- Dimensioning Diameters radii
- Dimensioning common features (e.g. chamfers, slopes and tapers)
- Dimensioning methods (i.e. chain dimensioning, datum or common-point dimensioning)
- Limits and fits.

**Unit 2            Schematic Drawing of Diagrams**

- Electric circuits
- Plumbing symbols
- Welding symbols
- Methods of indicating machined surfaces.

### **Unit 3          Application of Fasteners**

- Screws
- Thread
- Springs
- Rivets
- Washers etc.

### **Unit 4          Detailed Drawing**

- Drawing details of artifacts

### **Unit 5          Assembly Drawing**

- Types of Assembly drawing
- Preparation of assembly drawing from given details

NB: BS 308 parts 1 and 2 of 1985, specifications and rules must be strictly complied with.

## **METHODOLOGY**

The course is practically biased and it must be taught through series of practical exercises. Teaching method may include: lecture, demonstration, group discussion, field trip and activity methods.

## **ASSESSMENT**

There must be series of exercise which will constitute the assessment for this course:  
continuous assessment:- Class exercises, quizzes assignments etc 40% End of semester Examination A-3 hour paper 60%.

## **REFERENCE:**

- |                      |   |
|----------------------|---|
| Aidoo-Taylor N et al | Technical Drawing for senior Secondary School   |
| Freebury H.A (1971)  | Geometrical Technical Drawing Book 3<br>London Cassel and Company limited.  |
| Hart K.R (1975)      | <u>Engineering Drawing with Problems and Solution</u><br><u>Second Edition</u> . London. The English Universities Press Limited |

- Jackson E. (1975) Advanced Level Technical Drawing. Third Edition Medicated  
London Longman Group Limited
- Owoeye E.M. and Smith S.E. Engineering Drawing. London Macmillan  
Education Limited.
- Bertoline G.R. (1999) Introduction to Graphics Communications for Engineers  
Boston. The McGraw-Hill Companies, Inc.
- Simmons S.H. and Maguire  
D.F. (1974) A Manual of Engineering Drawing Practice  
London. The English University Press Limited.
- Jensen C. and Helsel J.D (1996) Fundamental of Engineering Draw  
Fourth Edition New York. Glencoe McGraw-Hill